

REMARKS

The drawings were objected to under 37 CFR 1.83(a). Claims 29 and 30 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 13 to 26 and 28 to 31 were rejected under 35 U.S.C. 102(b) as being unpatentable as anticipated by Arai et al. (U.S. Patent 4,875,335). Claim 27 was rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al.

Fig. 1 of the drawings have been amended to include previously omitted reference character 15, which denotes a closure wall. Support is found in the specification as filed at paragraphs [0004] and [0005], for example. No new matter is added.

Claims 13, 19, 29 and 31 have been amended. Support is found in the specification as filed at paragraphs [0004] to [0006] and [0016], for example. No new matter is added.

Reconsideration of the application is respectfully requested.

Examiner Interview Summary

Applicants' representative, Clint Mehall, Reg. No. 62,380, spoke with Examiner Tu on May 6, 2010 to clarify the rejections under 35 U.S.C. 112, first paragraph, and rejections 35 U.S.C. 102(b). Mr. Mehall and Examiner Tu discussed the rejection under 35 U.S.C. 112, first paragraph, of claim 29. After failing to agree on how one of skill would interpret "wherein the receiving device is connectable on the raw gas side of the filter wall," Mr. Mehall and Examiner Tu agreed that this language was not necessary to distinguish over the cited art and Examiner Tu indicated he would withdraw the rejections under 35 U.S.C. 112, first paragraph, if this language was removed from claim 29. Examiner Tu then agreed that Arai et al. does not disclose "a receiving device disposed downstream of at least a portion of the filter" as recited in claim 13 or "a receiving device located downstream of at least a portion of the filter wall" as recited in claim 29. Mr. Mehall and Examiner Tu also agreed on that Arai et al. does not teach "disposing of the particle constituents not removed from the raw gas side of the filter by the regeneration process by flowing fluid from the raw gas side to the clean side and forcing the particle constituents through the channels toward the closure wall" as now recited in claim 19 and "each channel being closed by a closure wall located downstream of at least a portion of the filter wall, the

closure wall configured to be at least partially openable so as to enable disposal of the particle constituents” as recited in claim 31. Applicants’ representatives thank Examiner Tu for his courtesy during the interview with Mr. Mehall and his willingness to spend time to reach the agreements discussed above.

Objection to the drawings

The drawings were objected to under 37 CFR 1.83(a) because the Replacement Sheet of drawings identifying the “closure wall configured to be partially opened to enable the disposing of the particle constituents” of claims 19 and 31 was mistakenly not included with the Response to Final Office Action filed August 13, 2009. Please find enclosed the Replacement Sheet of drawings include amended Fig. 1 including previously omitted reference character 15, which denotes a closure wall. Support is found in the specification as filed at paragraphs [0004] and [0005], for example. No new matter is added. Withdrawal of the objection to the drawings is respectfully requested.

Rejections under 35 U.S.C. 112, First Paragraph

Claims 29 and 30 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. As discussed above in the Examiner Interview Summary, claim 19 has been amended to remove “wherein the receiving device is connectable on the raw gas side of the filter wall.” In view of this, withdrawal of the rejection under 35 U.S.C. 112, first paragraph, is respectfully requested.

Rejections under 35 U.S.C. 102(b)

Claims 13 to 26 and 28 to 31 were rejected under 35 U.S.C. 102(b) as being unpatentable as anticipated by Arai et al. (U.S. Patent 4,875,335).

Arai et al. discloses a filter unit 10 installed in a casing 31. (Fig. 1; col. 5, lines 38 to 40). Just below the casing 31, a recollecting unit 41 for the particulates is arranged. (Col. 5, lines 57 to 57). Between the casing 31 and the recollecting unit 41, an inlet conduit 37 for an exhaust gas from a diesel engine is opened, approaching from sideways. (Col. 5, lines 58 to 61). The filter unit 10 is placed so that the distance from the upstream end face 16 of the filter unit 10 to the

recollecting unit 41 is 50 cm or below, more preferably 30 cm or below. (Col. 5, lines 63 to 65). At a position which is directly above the casing 31, the outlet conduit 38 includes a nozzle 40 for ejecting a pressurized gas with the opening of the nozzle being directed towards the outlet end face 17 of the filter unit 10. (Col. 6, lines 17 to 21). After particulate is collected in filter unit 10 during operation, a nozzle 40 downstream of filter unit 10 ejects pressurized gas that enters from an end face 17 of filter unit 10 into cells 13 of filter unit 10, passes through cell walls 11 and runs into cells 12, peeling off particulates accumulated on cell walls 11. (Col. 6, lines 56 to 68). Most of the peeled off particulates flow drop into the recollecting unit 41, but some flow into conduit 37. (Col. 6, line 68 to col. 7, line 4).

Independent Claim 13

Claim 13 recites “[a] method for operating a filter, the method comprising:

forcibly passing a stream of a fluid through a filter wall of the filter from a raw gas side to a clean gas side of the filter so as to separate out particles and particle constituents from the stream, wherein the particles and particle constituents are collected by the filter wall on the raw gas side; and

performing a regeneration process on the filter during operation of the filter to remove particles from the filter wall and moving particle constituents not removed from the raw gas side of the filter by the regeneration process to a receiving device disposed downstream of at least a portion of the filter-by forcibly passing a stream of fluid from the raw gas side through the filter so that the particle constituents are carried by the fluid to the receiving device.”

As discussed with Examiner Tu in the interview, Arai et al. does not disclose “moving particle constituents not removed from the raw gas side of the filter by the regeneration process to a receiving device disposed downstream of at least a portion of the filter by forcibly passing a stream of fluid from the raw gas side through the filter so that the particle constituents are carried by the fluid to the receiving device” as recited in claim 13. In Arai et al., recollecting unit 41 is disposed upstream of the entirety of filter unit 10 and thus is not disposed downstream of at least a portion of filter unit 10. Also, Arai et al. discloses moving particulates to recollecting unit 41 by ejecting pressurized gas from the clean gas side of filter unit 10 and not the raw gas side of filter unit 10. Thus, Arai et al. does not disclose this limitation of claim 13.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(b) of claim 13 and its dependent claims is respectfully requested.

Independent Claim 19

Claim 19 recites “[a] method for operating a filter including a plurality of filter walls forming a plurality of channels which are closed by a closure wall configured to be partially opened, the method comprising:

forcibly passing a stream of a fluid through the filter walls of the filter from a raw gas side to a clean gas side of the filter so as to separate out particles and particle constituents from the stream, wherein the particles and particle constituents are collected on the raw gas side; and

performing a regeneration process on the filter during operation of the filter to remove particles from the filter wall and disposing of the particle constituents not removed from the raw gas side of the filter by the regeneration process by flowing fluid from the raw gas side to the clean side and forcing the particle constituents through the channels toward the closure wall.”

As discussed with Examiner Tu in the interview, Arai et al. does not disclose “disposing of the particle constituents not removed from the raw gas side of the filter by the regeneration process by flowing fluid from the raw gas side to the clean side and forcing the particle constituents through the channels toward the closure wall” as recited in claim 19. As similarly addressed with respect to claim 13, Arai et al. discloses disposing of particulates from filter unit 10 by flowing gas from the clean gas side of filter unit 10 and not from the raw gas side of filter unit 10. Thus, Arai et al. does not disclose this limitation of claim 19.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(b) of claim 19 is respectfully requested.

Independent Claim 29

Claim 29 recites “[a] filter comprising:

a filter wall dividing a clean gas side and a raw gas side of the filter and configured to separate out particles and particle constituents from a stream of fluid passing flowing from the raw gas side through the filter wall and to enable the particles to be removed in a regeneration process; and

a receiving device located downstream of at least a portion of the filter wall configured to

receive a flow of the fluid from the raw gas side of the filter therethrough and to receive and hold the particle constituents, the filter wall and receiving device being arranged such that the stream of fluid passing through the filter wall from the raw gas side forces the particle constituents into the receiving device.”

As discussed with Examiner Tu in the interview, Arai et al. does not disclose “a receiving device located downstream of at least a portion of the filter wall” as recited in claim 29. As similarly addressed with respect to claim 13, in Arai et al., recollecting unit 41 is disposed upstream of the entirety of filter unit 10 and thus is not disposed downstream of at least a portion of any part of filter unit 10. Thus, Arai et al. does not disclose this limitation of claim 29.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(b) of claim 29 and its dependent claim is respectfully requested.

Independent Claim 31

Claim 31 recites “[a] filter comprising:

a filter wall dividing a clean gas side and a raw gas side of the filter and configured to separate out particles and particle constituents from a stream of fluid passing through the filter wall and to enable the particles to be removed in a regeneration process, wherein the filter wall forms a plurality of channels on the raw gas side, each channel being closed by a closure wall located downstream of at least a portion of the filter wall, the closure wall configured to be at least partially openable so as to enable disposal of the particle constituents.”

As discussed with Examiner Tu in the interview, Arai et al. does not disclose “each channel being closed by a closure wall located downstream of at least a portion of the filter wall, the closure wall configured to be at least partially openable so as to enable disposal of the particle constituents” as recited in claim 31. Arai et al. does not disclose a closure wall closing each channel that is configured to be at least partially openable so as to enable disposal of the particle constituents. Thus, Arai et al. does not disclose this limitation of claim 31.

Based on the foregoing, withdrawal of the rejection under 35 U.S.C. 102(b) of claim 31 is respectfully requested.

Rejection under 35 U.S.C. 103(a)

Claim 27 was rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al.


Claim 27 is dependent on claim 13. In view of the above arguments with respect to claim 13, withdrawal of the rejection under 35 U.S.C. 103(a) of claim 27 is respectfully requested.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,

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